CONSTRUCTION NEWS

Some of the Week's Large Projects

AMONG the announcements for the current week are the following:

Proposed Work

Irrigation, Salem, Oregon, state irrigation engineer made estimates and plans, $17,500,000.

Railway, San Antonio, Texas, R. W. Morrison organizing company and making surveys, $15,000,000.

Hydro-electric plant, Placerville, Calif., J. L. McNab plans, $10,000,000.

Office building, Pittsburgh, Pa., Grant Building, Inc., having plans prepared, $8,500,000.

Grade crossing eliminations, Phila., Pa., City and Reading R.R. Co. making plans. $3,000,000.-$4,000,000.

Apartment, Chicago, Ill., Rosenthal, Mayer & Lewis, $2,000,000.

School, New York, N. Y., Bd. Educ. having plans prepared, $1,500,000.

Amusement Pier, Toronto, Ont., Provincial Impvt. Corp. made plans, $1,000,000-$1,500,000.

Railway, Ohio, Toledo & Cincinnati R.R. Co. plans extension, $1,305,000.

Packing Plant, Seattle, Wash., Barton & Co. plan, $1,000,000.

Contracts Awarded

Apartment, Chicago, Ill., Syndicate, to A. Lindstrom. Archts. est. $3,000,000.

Apartment, Chicago, Ill., R. S. De Goyler & Co., to Fridstein & Co. Archts. est. $2,500,000.

Apartment, Los Angeles, Calif., Fletcher Syndicate, to C. Thoren, approx. $1,250,000.

Viaduct, Newark, N. J., State Highway Dept., to C. Meads & Co., New York City, $1,147,405.

Garage, Milwaukee, Wis., J. T. Cellinson, to R. L. Reisinger. Archts. est. $1,100,000.

Apartment, Phila., Pa., McIlvaine & Roberts, to Roberts & Roller. Archts. est. $1,000,000.

Apartment Hotel, Portland, Ore., Claremont Hotel Co., to Hanson & Hammond Co. $1,000,000.

News of the Week

Waterworks

Proposed Work

Mich., Detroit—Dept. Water Supply, G. H. Fenkell, genl. mgr., 176 East Jefferson Ave., making plans 37,000 ft. 6- to 16-in. mains in Ford Highway, Warren, Francisco, Mansfield, Curtis, Biltmore, Ashton and Thornton Aves., Seven Mile, Southfield, and Dunn Rds., etc.

Mich., Halfway—Made plans extending 39,641 ft. 6- to 12-in. mains, etc. in various streets. H. R. O'Mara, Halfway, engr.

Mich., Royal Oak (Ind. br. Detroit)—Making plans extending 6- to 24-in. c.i. mains, etc. in various streets. $500,000. E. M. Shafter, Royal Oak, engr.

Neb., Plattsmouth—Making plans waterworks. To exceed $25,000. Bruce & Grupe, 710 Bankers Reserve Life Bldg., Omaha, engrs.

Mo., Ironton — Takes bids in spring 100,000 gal. concrete reservoir, deep well, pump house and plunger type pump, 28,225 ft. 4- to 8-in. c.i. mains, 30 gate valves and boxes, 37 fire hydrants, etc. $90,000. W. A. Fuller Co., Ry. Exch. Bldg., St. Louis, engrs. Noted June 16.

Tex., Houston—Making plans 12 in. main from North Main Plant on Little White Oak Bayou to Houston Heights, $40,000; also new mains from North Main Plant on Little White Oak Bayou to Woodland Heights, $40,000. J. C. McVea, city engr.

Okla., Boswell—Pub. Serv. Co., 510 South Boston St., made preliminary plans new water pumping station for power plant, near here. $60,000. W. D. Parks, Hugo, engr.

Okla., Marshall — Making preliminary plans extending 15,000 ft. 4- to 8-in. c.i. mains, etc. in various streets. $20,000. G. F. Ingle, mayor. Engineer not announced.

Wash., Bellingham — Approved $250,000 bond issue, improving and extending waterworks.

Calif., Santa Cruz—J. P. Sweeney, 14 Montgomery St., San Francisco, plans water distributing system, 12,000 ft. 4 ft. metal wood or concrete flume, storage reservoirs, etc., here. $350,000.

Ont., Hamilton—Plans new reservoir and improving Ferguson Ave. pumping station. $800,000. W. L. McFaul, City Hall, eng.

Ont., Richmond Hill—Plans extending 1 mi. c.i. mains, etc. in various streets. $15,000-$20,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs.

Bids Desired

N. H., Epping—Bd. Selectmen taking bids waterworks, incl. power house, standpipe, etc. $30,000. Private plans.

N. Y., Brooklyn—Sept. 16, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, mains in Avenues J, L, M and Q, Benson, Stanley, Canal, Flatlands and Hegeman Aves., and Crescent, Ford, Lombardy, Navy and Sackett Sts., etc., here.

N. Y., Long Island City—Sept. 13, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, mains in Bleecker, Greene, Grove, Harman, Himrod, Linden Aves., etc., here.

N. Y., Long Island City—Sept. 16, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, mains in Borden, 38th, 80th and Himrod Aves., 22nd, 48th, 127th, 170th and 202nd Sts., etc., here.

N. Y., New York—Sept. 16, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., mains in Adee, Bryant, Commonwealth, Hering, Lafayette Aves., etc., Bronx Boro.

D. C., Wash.—Sept. 13, by District Comrs., District Bldg., constructing Water Tower 2, Reno Reservoir.

Michigan—Sept. 12, by D. W. Beauvais, clk. Ira Twp., Anchorville, 803 tons c.i. pipe, 11.5 tons c.i. specials, gates, hydrants, 75,000 gal. elevated steel tank, pumping station, intake crib and suction line in Anchorville and Fairhaven. Ayres, Lewis, Norris & May, Cornwall Bldg., Ann Arbor, engrs.

THESE reports are grouped under each class (water-works, sewers, etc.) and under each stage of the work (proposed, bids desired, etc.), according to the following geographic sections: New England, Middle Atlantic, South, Middle West, between Mississippi and Rocky Mountains, Far West, and Canada.

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk, or corresponding official.

Tex., Devine—City, c/o F. C. Hemphill, secy., taking bids improving waterworks, incl. 20,000 ft. various sized pipe, elevated tank, etc. $50,000. Private plans.

Tex., San Benito — See "Contracts Awarded."

Calif., El Segundo—Sept. 16, by V. D. McCarthy, city clk., 3,100 ft. 2 in. galvanized standard screw and 23,200 4 to 10 in. B & S c.i. pipe, etc.

Calif., Escondido—Sept. 16, by R. T. Huchins, city clk., 3,100 ft. 2 in. galvanized standard screw and 23,200 ft. 4- to 10-in. B. & S. c.i. pipe, etc.

Calif., Los Angeles—Sept. 19, by Supervs. Los Angeles Co., constructing Sierra Madre Dam and 1,400 ft. 7 x 10 ft. rein.-con. Channel, incl. concrete arch dam, retaining walls, etc. E. C. Eaton, 202 North Bway., engr.

B. C., Vancouver—Sept. 20, by City Council, 5,000 ft. 24 in. lap welded steel or c.i. pipe, or 26 in riveted steel pipe. C. Brackenridge, City Hall, engr.

Contracts Awarded

Md., Baltimore—Bd. Awards, copper pipe for Bureau Water Supply, to Baltimore Tube Co., 1301 Wicomico St., $13,080. Noted Aug. 11.

Ia., Indianola—To Continental Concrete Well Co., Wichita, Kan., two 50 ft. wells at $45 per ft. and one well at $40 per ft.

Ia., Ogden—Deep well, etc., to Thorpe Bros., 224 Atlas Bldg., Des Moines, $20,175. Noted July 7.

Mo., Carthage — See "Buildings — Industrial."

Tex., San Benito—Central Power & Light Co., c/o Frost Bldg San Antonio, will build 1 story, brick and stucco filtration plant, 1 m.g. capacity, and concrete reservoirs, by day labor. $50,000. Alvord, Burdick & Howson, 8 South Dearborn St., Chicago, Ill., Engrs. Noted Aug. 4.

Sewers

Proposed Work

N. Y., Brooklyn — J. J. Byrne, pres. Brooklyn Boro, Boro Hall, rejected bids Aug. 24, sewers in Kings Highway; also sewer in West 10th St., to A. W. Matarazzo, 1163 61st St., $7,769. Noted Aug. 25.

N. J., Cliffside Park (mail Cliffside) — Making plans 42 in. sewer in Jassamine Way, Kingsland Lane, Aurora, Lawton and Columbia Aves. $70,000. McClave & McClave, 460 Anderson Ave., engrs.

La., Pineville—Takes bids about Nov. 1, sewerage system, etc. $100,000. Swanson-McGraw Inc., Balter Bldg., New Orleans, engrs.

Mich., Detroit—Dept. Pub. Wks., making plans Connors Creek Sewer Conduit, 7,000 ft. long rein.-con., monolithic construction. P. A. Fellows, city engr.

Ia., Des Moines—Making preliminary plans 10 in. vitr. clay pipe sewers in Windsor Pl. $30,000. J. M. Tippee, City Hall, engr.

Mo., Kansas City—Making plans sewers in street from 37th St. and Gilham Rd. to Harrison St. south to Brush Creek. $550,000. R. Waddell, City Hall, engr.

Ark., Hot Springs—Oakland Natl. Park Sewer Impvt. Dist., takes bids latter part September. 59,250 ft. 6- to 18-in. sewers, disposal plant of Imhoff tank and sludge bed, etc., in 600 acre tract near here. H. S. Moreland, 625 Central Ave., engr. Noted Aug. 11.

Ark., Paris—See "Streets and Roads."

Tex., Freeport—Plans sewerage system. $25,000. Address Mayor.

Okla., Bristow—Plans 7,000 ft. 8- to 12-in. vitr. clay sewers, etc. in Krumrei addition. $28,000. C. L. Wilson, Weatherford, engr.

Okla., Picher—Made preliminary plans sewers in various streets. $66,000. A Holland, city clk. Engineer not selected.

See proposal advertising on page 160

TRADE **"LEADITE"** MARK

Registered U. S. Pat. Office

"The World's Playground" has used Leadite with complete satisfaction for over 20 years

ATLANTIC CITY, New Jersey, is proud of its well-paved streets. In laying new or additional cast iron mains, the engineers always use Leadite. They know from the experience of nearly one-quarter of a century that Leadite joints are absolutely secure and that the occasion will not arise where paved streets have to be dug up to repair the line.

In addition to the mains under the paved streets, Leadite was used for jointing the 24" main that runs under the famous boardwalk.

Other lines run through salt marshes, over bridges and under numerous railroad tracks.

The sizes of these mains run from 4" to 48".

Mr. L. Van Gilder is Engineer and Superintendent of the Atlantic City water department.

Added to the security and permanence of Leadite joints there is a saving of 75%.

For its economy—permanence—security—and the speed with which jointing can be finished—Water Works men specify and use Leadite.

Laying 24" c. i. water mains, with Leadite Joints, in Atlantic City under paved street.

Specify and use LEADITE —it saves at least 75%

Be sure it is LEADITE and accept no imitations~~~

The pioneer self-caulking material for c. i. pipe. Tested and used for over 30 years.

THE LEADITE COMPANY . . Land Title Building . . PHILADELPHIA, PA.

NO CAULKING

Sewers (Continued)

Okla., Rush Springs — Voted $35,000 bonds. 21,600 ft. 6- to 10-in. vitr. clay sewers in all streets. $35,000. J. E. Milliken, Continental Bldg., Oklahoma City, engr.

Calif., Los Angeles — Drainage Impvt. Dist. 21, made plans rein.-con. sewer, etc., in Montebello Dist. along Whittier Blvd. $234,750. C. E. Arnold, Hall of Records Bldg., drainage constr. engr.

Ont., Oshawa—Plans completing Julien Sewer, 1 mi. 36 in. or larger pipe. $50,000. W. C. Smith, Oshawa, engr.

Ont., Waterloo — Making plans relief sewer in Erb St. and Bridgeport Rd. $35,000. N. A. Zick, City Hall, engr.

Bids Desired

Massachusetts—Sept. 14, by Dept Pub. Health, State House, Boston, sewers, etc., at Westfield State Sanatorium, Westfield, and North Reading Sanatorium, North Reading. G. H. Bigelow, comr.

Mass., Boston—Sept. 15 by Dept. Pub. Wks., sewerage works in South Boston, Dorchester, Roxbury, West Roxbury, Hyde Park and Charlestown. $25,000. J. H. Sullivan, comr.

Conn., Hamden (br. New Haven)—Sept. 13, by F. W. Wright, town engr. 27,700 ft. sewers in various streets. $300,000 appropriated. Noted July 28.

N. Y., Beacon—Sept. 19, by Dept. Correction, 353 Bway., Albany, sanitary sewer and water lines, stand pipe and elevated tank, at Mateawan State Hospital, here; adv. E. N.-R. Sept. 8.

N. Y., Larchmont—Sept. 9, by Bd. Village Trustees, E. D. Wakeman, clk., Municipal Bldg., 1,265 ft. vitr. and c.i. sewer in Dist. 5A from Jochum Ave. to Larchmont Park Pumping Station, Contr. 112. G. H. Bell, acting mayor.

N. Y., New York—Sept. 15, by J. Miller, pres. Manhattan Boro, Municipal Bldg., sewer in Payson Ave.

N. J., Vineland—Sept. 13, by Bd. Boro Comrs., Boro Hall, trunk sewer and settling tanks. Clyde Potts, 30 Church St., New York City, consult. engr.

Pa., Phila.—Sept. 14, by Dept. Pub. Wks., Bureau of Engineering, Schedule A, branch sewers in City Avenue, Indian Queen Lane, Betts, Bridge, D. Devereaux, 58th, Gerhard, Granite, Herbert, Milnor, Ruan and Simon Sts.; and Schedule B, inlets, laterals, etc. G. H. Biles, dir.

La., Shreveport—Sept. 27, by W. T. Mayo, comr. Pub. Utilities, City Hall, constructing Broadmoor, South Highlands, Cedar Grove, Jewella and Southwest Shreveport sewer. S. G. Wolfe, secy.-treas. Noted Mar. 24 under "Waterworks."

O., Alliance — Oct. 1, by Bd. Control, modern sewage disposal plant. $800,000. G. B. Gascigne, Leader Bldg., Cleveland, consult. engr. Noted July 7.

O., Canton — Nov. 20, by Bd. Control, sewers in various streets. $290,000. W. E. Sarver, City Hall, engr.

O., New Boston (sta. Portsmouth)—Sept. 20, by K. Taylor, village clk., Main Sewer Outlet, 1,035 ft. 66 in. double ring brick, 13 to 26 ft. deep. $39,000. J. D. Wilson, 1417 Grandview Ave., Portsmouth, engr. Noted Sept. 1.

Ind., Indianapolis—Sept. 14, by Bd. Pub. Wks., improving sewers in Audubon Rd., Cable, West Court, Maryland, Michigan, and Exeter Sts., Temple, and Stanton Aves., etc.

Mich., East Lansing—Sept. 12, by City, B. A. Faunce, clk., sewage treatment plant, incl. pump house, pumps, Imhoff tank, 7,700 sq.ft. sludge bed, etc. Hubbell, Hartgering & Roth, 2640 Buhl Bldg., Detroit, engrs.

Mich., Grosse Pointe Farms (mail Grosse Pointe)—Sept. 12, by J. R. Kerby, village clk., 3,100 ft. 24- to 48-in. concrete or vitr. sewer in Moran Rd. and Grosse Pointe Blvd. Hubbell, Hartgering & Roth, 2640 Buhl Bldg., Detroit, engrs.

Mich., Roseville—Sept. 16, by E. D. Millar, drain comr. Macomb Co., Mt. Clemens, Martin Drain, Sect. A, 1141 ft. 6½ ft. x 8 ft. double box section outfall sewer, 4,300 ft. 6½ x 8 ft. sewers etc., Sect. B, 7,982 ft. 8 ft. 10 in. x 12 ft. semi circular section, 53 ft. junction chamber, 100 ft. 6 in. concrete pipe, etc., Sect. C, 5,336 ft. 6 in. cylinder, 3,998 ft. 5 ft. cylinder, 2,687 ft. 3 ft. 6 in. and 1,333 ft. 3 ft. cylinder, etc.; and Sect. D, 4,563 ft. 6 ft. 6 in. cylinder, 2,136 ft. 6 ft., 2,589 ft. 5 ft. and 1,415 ft. 4½ ft. cylinder. $1,500,000. W. Lehner, Ulrich Bank, Mt. Clemens, engr.

Mo., St. Louis—Sept. 20, by Bd. Pub. Serv., 208 City Hall, South Hurst Sewer 1, 2,535 ft. 8- to 24-in. vitr. clay pipe, etc. $8,520; Rock Creek Sewer Dist. 11, 6,255 ft. 8- to 24-in. vitr. clay pipe, etc. $21,520; and Cheltenham Sewer 1,900 ft. 8- to 24-in. vitr. clay pipe, etc., $3,600. W. W. Horner, 300 City Hall, engr. Noted Dec. 23 and Aug. 11.

Calif., Beverly Hills—Sept. 20, by City Clerk, storm drain system in Hartford Way, etc. $25,0 0or more. A. R. Mathews, city engr.

Calif., Los Angeles—Sept. 19, by Supervs. Los Angeles Co., rein.-con. sewer in Sycamore Wash near Forest Lawn Memorial Park. E. C. Eaton, 202 North Bway., engr.

Calif., Manhattan Beach (Manhattan P. O.)—Sept. 15, by L. Price, city clk., vitr. main sewer, house connections, etc. in Homer St. and Neptune Ave., etc. $25,000 or more. Noted Aug. 25.

Calif., Santa Ana — Sept. 19, by E. L. Vegely, city clk., constructing sewage screening, building, etc. Burns-McDonnell-Smith Eng. Co., Western Pacific Bldg., Los Angeles, engrs.

Contracts Awarded

N. Y., Brooklyn—See "Proposed Work."

Miss., Ittabana — Sewers in various streets, incl. 28,400 ft. 8- to 12-in. vitr. clay pipe, 45 standard manholes, 2 drop manholes, 2 flush tanks, 12 lampholes, sediment tank, electric sewer lift, etc., to J. B. McCrary Eng. Corp., Citizens & Southern Bank Bldg., Atlanta, Ga., approximately $50,000. Noted June 17.

Ky., Louisville—Comrs. Sewerage, M. H. Crawford, chn., Bd. Trade Bldg., Fourth Street Relief Sewer from Bway. to river and in small section Chestnut St., to Northern States Constr. Co., 312 Endicott Bldg., St. Paul, Minn., Plan "A" (allowing light traffic, only on 4th St.) $582,940, or Plan "B" (allowing heavy traffic, by tunnelling) $677,258. Noted May 12.

O., Akron—W. F. Peters, dir. Pub. Serv. **(e.e. means engrs. est.)**, to F. George, 1657 Mahoning Ave., Youngstown, 9,200 ft. 8 and 12 in. vitr. clay sewer, etc. in North Firestone Blvd. et al, $48,073 e.e. $48,600; 2,685 ft. 8- to 54-in. segmental block combined sewer Wellington Ave., $23,579 e.e. $31,800; also 3,820 ft. 8- to 24-in. Barder Ave. et. al. $15,146 e.e. $21,900. Grand total $86,798.

O., Akron—W. F. Peters, dir. Pub. Serv., 3,140 ft. 30- to 36-in. segmental block intercepting sewer along Ohio Canal from Market St. to Buchtel Ave., to McAlonan Bros., 506 Woodland Ave., $107,998. Engrs. est. $77,000. Noted Aug. 11.

Ill., Wilmette—Bd. Local Impvts. 8- to 36-in. vitr. tile sewers in Gross Point Addition, to C. Conrad, Evanston, $245,585. Former contract rescinded. Noted Sept. 16, 1926.

Wis., Milwaukee—Bd. Pub. Wks., R. E. Stoelting, comr., to Clayton Constr. Co., 5102 Burleigh St., sewers in Cleveland Ave. $2,239, Dickinson St. $50,424, 61st St. $10,366, and 65th St. $10,209; to Zimmermann & Zimmermann, 3402 Wisconsin Ave., Jackson St., $949; and to W. T. Werner, 675 Hi-Mount Blvd., 30th Ave., $62. Grand total $74,949.

Wis., Milwaukee—Bd. Pub. Wks., R. E. Stoelting, comr., to Deroz & Phillips Co., 457 Muriel St., sewers in Orchard St. $918, Burnham St. $5,567, Townsend St. $804, 12th Ave. $1,061, and Watertown Rd. $12,704; to T. G. Holton, 345 27th Ave., Milwaukee Lane, $4,384; to Wenzel & Henoch, 49th and State Sts., Montana St. $1,815; and to A. H. Hoch, 300 Martha Washington Dr. Wauwatosa, 10th Ave. $6,926. Grand total $34,179.

Ia., Oelwein—See "Streets and Roads."

Ark., Jonesboro — Cobb & Lee, engrs., Amer. Trust Bldg., 10,260 ft. 12- to 21-in. round sewers, etc., in Jonesboro Storm Sewer & D. D. 30 of Craighead Co., to Kochtitzky Bros., England, $126,970; and drainage work, to Bunnel & Mack, Paragould, $64,400. Noted Aug. 4.

Minn., St. Paul — A. E. Eggert, city purch. agt., constructing Beaver Heights Sewerage System, to O'Neil & Preston, 607 Exchange Bank Bldg., $179,222.

Minn., Winona—G. W. Hofmann, city recdr., 12- to 30-in. storm sewers, 77 manholes, 274 inlets and catchbasins, etc., in various streets, to C. Jensen, 420 Baker St., $72,200. Noted Aug. 4.

Waste Disposal

Proposed Work

Wis., Wauwatosa—Common Council making plans incinerator. $35,000. J. E. Lowther, city engr.

Bids Desired

O., New Boston (Portsmouth Sta.)—Sept. 20, by K. Taylor, village clk., refuse incinerator.

Bridges

Proposed Work

O., Canton—Bd. Control takes bids about Sept. 23, 1 span concrete bridge over waterworks race, 12th St. N. W. $25,000-$30,000. W. E. Sarver and A. Wise, City Hall, engrs.

Ind., Fort Wayne—Allen Co. plans concrete bridge over St. Mary's River, on Oakdale Dr. and Bluffton Rd. $150,000.

Mich., Port Huron—Grand Trunk Ry., J. A. Heaman, ch. engr., 400 East Jefferson Ave., Detroit, making plans new bascule lift span bridge, over railroad tracks and Black River. $250,000.

Ill., Chicago—Cook Co. Hy. Dept., County Bldg., making plans 3 rein.-con. bridges over Des Plaines River, one 3 span 199½ ft. long, 44 ft. roadway and two 5 ft. sidewalks, at Higgins Rd.; two 3 span 159 ft. long, 44 ft. roadway and two 5 ft. sidewalks, one at Oakton Ave., and other at Rand Rd.; also 2 span 86 ft. bridge, 44 ft. roadway and two 5 ft. sidewalks over North Branch Chicago River, at Oakton Ave. G. A. Quinlan, County Bldg., engr.

Minnesota—Minneapolis, Northfield & Southern R.R. Co., R. C. Smith, ch. engr., 208 Lincoln Bank Bldg., Minneapolis, plans steel bridge on concrete or steel abutements over Minnesota River near Bloomington and Savage.

Kan., Cottonwood Falls—Chase Co. making plans eight 70 ft. and two 35 ft. span truss and I-beam bridge, on Federal Aid Project 47-C.

Kan., Eldorado—Butler Co. made plans two 40 ft. and one 120 ft. span I-beam and truss bridge. E. S. Elcock, Eldorado, engr.

Kan., Medicine Lodge—Barber Co. making preliminary plans eight 40 ft. span deck girder Federal Aid Bridge, at Sta. 95-88. L. A. Tilton, Court House, engr.

Kan., Sedan—Chautauqua Co., plans 3 bridges on Federal Aid Project 384. C. E. Fesler, Court House, engr.

Arkansas—State Hy. Dept., Little Rock, making preliminary plans rein.-con. and steel bridge over Carron Creek, on State Highway 64, Gleason Co. $25,000. C. S. Christian, State Hy. Dept., engr.

Texas and Oklahoma—Chicago, Rock Island & Pacific R.R. Co., C. A. Morse, ch. engr., Chicago, Ill., made plans 2,400 ft. rein.-con. and steel bridge, 36 ft. over Canadian River between Texas and Oklahoma, $1,000,000.

Oklahoma—State Hy. Dept., Oklahoma City, made preliminary plans 1 span 96 ft. steel truss bridge on piers over Cedar Creek, on Highway 18, near Asher, Pottawatomie Co., $32,000; 1 span 95 ft. steel truss bridge on piers over Chadron Creek, near Spiro, Le Flore Co., $50,000; and 1 span 76 ft. steel truss bridge on concrete piers over Chickasaw Creek, near Stringtown, Atoka Co., $30,000. C. R. Mandigo, Capitol Bldg., Oklahoma City, engr.

Okla., Harrah—Oklahoma Co. (Oklahoma City) making preliminary plans 3 span 160 ft. steel truss bridge on piers over Rock Island R.R. tracks, near here. $40,000. R. S. James, Court House, Oklahoma City, engr.

Okla., Tulsa—Tulsa Co. making preliminary plans new bridge across Arkansas River, on 41st St. $400,000. H. A. Parker, Court House, engr.

Que., St. Lambert—Canadian Natl. R.R., C. S. Gzowski, ch. engr. (constr.), Montreal, plans single span bridges, on Front St. and Victoria Ave., here. $100,000.

Bids Desired

Connecticut—See "Streets and Roads."

New York—Sept. 13, by T. F. Farrell, comr. Canals & Waterways, State Pub. Wks., Bldg., 353 Bway., Albany, removing existing bridges and constructing new highway crossings at 5 locations on Erie Canal, Madison and Oneida Counties, Erie Canal Contr. M-33.

N. J., Matawan—Sept. 21, by Bd. Freeholders Monmouth Co., Court House, Freehold, constructing Bridge Ma-9 and Dam, here. G. K. Allen, Jr., 60 Broad St., Red Bank, co. engr.; adv. E. N.-R. Sept. 8.

Pennsylvania—See "Streets and Roads."

South Carolina—Sept. 20, by State Hy. Dept., Columbia, bridges in Dorchester-Orangeburg, Colleton-Dorchester, Richland-Lexington, Greenville-Pickens, York and Florence Counties. B. M. Sawyer, ch. comr.

Michigan—Sept. 22, by H. C. Fleming, resident engr., Grand Rapids, Federal Aid Bridge 1 of 54-1-1, Contr. 1, two 40 ft. and 70 ft. spans, Mecosta Co., State Hy. Dept., Lansing.

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Bridges (Continued)

Michigan—Sept. 16, by C. L. Cowgill, resident engr., Plymouth, State Reward Bridge 1 of 50-3-24 Contr. 1, two 50 spans steel deck girder, Macomb Co., for State Hy. Dept., Lansing.

Illinois — Sept. 14, by State Dept. Pub. Wks. & Buildings, Div. Highways, Springfield, two 23 ft. span rein.-con. slab bridge on Route 55, Sect. 551-B, Cook Co.; one 21 ft. span rein.-con. slab bridge, one 100 ft. and one 140 ft. span rein.-con. and steel bridge on Route 88, Sects. 102-B and C, Whiteside Co.; one 20 ft. rein.-con. slab and one 40 ft. rein.-con. girder bridges on Route 121, Sect. 141-B, Piatt and Moultrie Counties; two 20 ft. and four 22 ft. rein.-con. slab bridges and two 10 ft. box culverts on Route 127, Sect. 112-B, Clinton Co.; and two 50 ft. rein.-con. girder bridges, on Route 142, Sect. 103-B, Fayette Co. F. T. Sheets, ch. highway engr.

Ia., Charles City — Sept. 12, at office Auditor Floyd Co., steel or treated timber construction, approaches and reflooring 200 ft. span and abutments, placing old truss, new floor and painting old truss bridges. J. H. Curtis, Charles City, co. engr.

Kan., Belleville — See "Streets and Roads."

Kan., Salina—See "Streets and Roads."

Washington—See "Streets and Roads."

Calif., Willows—Sept. 19, by State Hy. Comn., Sacramento, one 30 ft. and two 14 ft. span rein.-con. girder bridge over Wilson Creek, 2 mi. north of here, Glenn Co. R. M. Morton, Strub Bldg., Sacramento, engr.

Ont., Ottawa—Sept. 15, by Secretary Federal Dist. Comn., 53 Queen St., 30 span 2,200 ft., concrete, steel and stone bridge over Ottawa River, near here. $450,000. A. K. Hay, 279 Carling Ave., engr. Noted July 14.

Contracts Awarded

New York—A. W. Brandt, comr. Highways, Albany, **(e.e. means engrs. est.)** reconstructing bridge Repair Contr. 1646, on Highway 5199, Chazy-Rouses Point Rd., Clinton Co., to P. Sawyer & Co., Plattsburg, $5,577 e.e. $7,059; three 70 ft. span bridges on Repair Contr. 1646, Highway 525, Lawton-Gowanda Rd., Erie Co., to John Cowper Co., Inc., Fidelity Bldg., Buffalo, $78,891 e.e. $104,187; bridge on Repair Contr. 1647, Highway 491, Hilton-Bartletts Corners, Highway 1281, West Greece-Manitow Beach, Monroe Co., to G. J. Gooberlet, Rochester, $23,897 e.e. $28,915; bridge on Repair Contr. 1648, Highway 5195, Croomans-Howes Cave Rd., Schoharie Co., to S. A. Scullen, Inc., Cohoes, $54,999 e.e. $67,936; on Bridge Repair Contr. 1645, Highway 5453, East Aurora-Holland Rd., Part 2, Erie Co., to Oatka Eng. & Constr. Co., Inc., Warsaw, $108,018 e.e. $140,378. Grand total $271,382. Noted Aug. 11 under "Streets and Roads."

N. J., Newark—State Hy. Dept., Trenton, 1,647 ft. viaduct on Route 1 Extension, Sect. 14-A, Essex Co., to C. Meads & Co., 217 West 13th St., New York City, $1,147,405. Noted Aug. 25.

Pennsylvania—State Hy. Comn., Harrisburg, constructing Clymer Bridge, 468 ft. long, rein.-con., etc., on Route 262, Indiana Co., to D. H. and W. E. Clark, 117 Mary St., Johnsonburg, $92,310. Noted Aug. 11.

Pa., Bethlehem — Northampton Co., 2 concrete bridges over Saucon Creek, to Potruch Co., Allentown, $29,000.

Ohio—G. F. Schlesinger, dir. Highways & Pub. Wks., Columbus, constructing concrete beam bridge over Wheelabout Creek on Sect. "McArthur" McArthur-Athens Rd., Vinton Co., and 50 ft. span concrete girder bridge on Sect. "E" Lancaster-Newark Rd., Fairfield Co., to L. S. Gaty, 1544 East Broad St., Columbus, $9,147 and $6,141 respectively; 36 ft. span concrete beam bridge on Sect. "B" Lancaster-Circleville Rd., Fairfield Co., to L. Brown, Lancaster, $8,386; 2 concrete beam bridges on Sect. "B" Dayton-Lakeview Rd., Logan Co., to Scioto Constr. Co., Kenton, $14,830; 15 ft. span arch concrete bridge on Sect. "D" Mansfield-Millersburg Rd., Ashland Co., to H. S. Scott, Ashland, $3,835; standard concrete bridge on Sect. "A-1" Wapakoneta-Bellefontaine Rd., Auglaize Co., to Pandora Cement Block Co., Pandora, $7,813; 20 ft. span slab concrete bridge Sect. "J" Roundhead-McGuffey Rd., Hardin Co., to J. McQuown, Kenton, $3,140; 3 concrete bridges and approaches on Sect. "A-2" Delphos-Upper Sandusky Rd., Allen Co., to L. I. Clymer, Bluffton, $25,383; 2 bridges and approaches on Sect. "A-1" Wapakoneta-Bellefontaine Rd., Auglaize Co., to W. L. Hastings, Wapakoneta, $4,616; 4 culverts and 60 ft. concrete girder bridge on Sect. "A" Troy-Urbana-Southern Rd., Champaign Co., to C. C. Carpenter, Ada, $11,253; 3 span concrete bridge over Hocking River, Sect. "A" Lancaster-Logan Rd., Fairfield Co., to Stout & Stout, Stoutsville, $21,794; grading and constructing steel bridge over Racoon Creek, on Sect. "Vinton" Gallipolis-McArthur Rd., Gallia Co., to J. B. Dale & Son, Gallipolis, $46,126; 2 span concrete bridge over Massie Creek, and widening approaches on Sect. "E" Columbus-Cincinnati Rd., Greene Co., to A. J. Chaney & Son, Hillsboro, $44,880; concrete span bridge over Rocky River on Sect. "J-2" Cleveland-Hickley-Medina Rd., Medina Co., to G. W. Luke & Sons, 122 Kensington Court, N.W., Canton, $35,167; 10 bridges and 52 culverts on Sects. "O", "P" and "Q" National Rd., Preble Co., to Putnam & Sunday, Antwerp, $33,272; concrete abutments and 147 ft. span steel truss bridge, on Sect. "F-2" Ganges-Plymouth Rd., Richland Co., to Brookfield Constr. Co., Brookfield, $28,255; concrete girder bridge and approaches, on Sect. "Muddy Creek Bridge" Fremont-Port Clinton Rd., Sandusky Co., to W. A. Yeagle, Clyde, $35,586; concrete bridge over Little Racoon Creek, Vinton Co., to Neilson & Taylor, Columbus, $15,016. Grand total $354,640.

Michigan—R. R. Havens, resident engr., Jackson, R. B. 1 of 33-6-31, two 50 ft. spans, Ingham Co., for State Hy. Dept., Lansing, Contr. 1, to McClintic Marshall Co., 1242 Book Bldg., Detroit, $4,871; and Contr. 2, to Walter Toebe Co., Shingleton, $29,542. Noted Aug. 4.

Mich., Port Huron—E. R. Benkert, resident engr., Port Huron, R. Bridge 1 of 77-22-21, two 75 ft. span, rein.-con., St. Clair Co., to Walter-Toebe Co., Shingleton, for State Hy. Dist., Lansing. $42,242. Noted Aug. 4.

Wis., Milwaukee—Dept. Pub. Wks., R. E. Stoelting, comr., constructing Briar Hill stone substructure for 250 ft. steel bascule span bridge, 60 ft. with 12 ft. sidewalks, etc., on Cedar St., to E. E. Gillen, 288 East Water St., $507,538; also furnishing and delivering all structural steel, machinery, castings, forgings, etc. for superstructure for above, to Milwaukee Bridge Co., 1400-34th St., $148,795. Noted Apr. 14.

Minn., St. Paul—See "Streets and Roads."

Washington—State Hy. Comn., Olympia, two 30 ft. and one 40 ft. concrete T-beam span bridge, etc. over Swamp Creek, on State Rd. 1, King Co., to Pacific Constr. & Timber Co., 510 Lloyd Bldg., Seattle $12,585; and superstructure for 400 ft. steel and concrete bridge over Yakmia River on State Rd. 3, Yakima Co., to H. W. Pohlman, 401 East G St., Tacoma, $38,524. Noted Aug. 11.

Dams

Proposed Work

California—See "Buildings-Industrial."

Calif., Los Angeles—Supervs. Los Angeles Co. Flood Control Dist. made new plans San Gabriel Dam, 425 ft. high to impound 240,000 acre ft. E. C. Eaton, 202 North Bway., ch. engr. Noted Aug. 11.

Calif., Placerville—See "Buildings—Industrial."

Ont., London—Utilities Comn., making plans cement dam. $150,000. W. P. Near, City Hall, engr.

Railways

Proposed Work

Ohio — Toledo & Cincinnati R.R. Co., plans extending 2.9 mi. railway from point 3.3 mi. north of Hamilton, and 1.4 mi. railway to plant of Amer. Rolling Mill Co. near Middletown. $1,305,000.

Texas—R. W. Morrison, et al, San Antonio, organizing company and making surveys railroad from San Angelo to Corpus Christi, via San Antonio. $15,000,000. Engineer announced soon.

Contracts Awarded

Texas—Southern Pacific Ry Co., 65 Market St., San Francisco, Calif., grading for extending 28 mi. railway between Houston and Harlingen, here, to W. J. Harris Constrg. Co., El Paso, approximately $90,000.

Excavation, Drainage, Irrigation, Levees, River and Harbor

Proposed Work

Wis., Green Bay—City, c/o J. Mc-Gillan, mayor, plans dredging Fox River by sand suckers and treat sand on banks. $25,000. Engineer not selected.

Ia., Council Bluffs—Pottawatomie Co. soon takes bids rein.-con. retaining wall and dam along Indian Creek from 6th to 13th Sts., incl. 1,408 cu.yd. rein.-con., 9,825 ft. piling, 4 sheet piling dams, etc. $46,595. B. Walker, City Hall, engr.

Oregon — R. L. Luper, state irrigation engr., Salem, made estimates, plans and application constructing 700,000 acre ft. storage reservoir, incl. dam 375 ft. high and 192 ft. thick at base, to convey 126,000 acre ft. water from Owyhee River, Malheur Co., for Owyhee Malheur Irrigation Project Dam $6,112,000, total $17,500,000.

Bids Desired

N. Y., Howard Beach (br. Jamaica)—Sept. 15, by M. Cosgrove, comr. Docks, Pier "A," foot Battery Pl., North River, New York City, dredging channel, Contr. 1899, Queens Boro.

Ia., Burlington—Sept. 20, by Trustees Des Moines Co. D. D. 7, electrifying one unit Lazwell Pumping Station; adv. E. N.-R. Sept. 8.

Contracts Awarded

N. Y., New York — M. Cosgrove, comr. Docks, Pier "A," Battery Pl., bulkhead wall at East 17th St. and East River, to General Contg. & Eng. Co., 40 Rector St., $15,090. Noted Aug. 11.

N. J., Trenton — Mercer Co., repairing and resurfacing Delaware and Raritan Canal tunnel at Cadwalader Park, to A. C. Horn Sales Corp., Hancock St., Long Island City, N. Y., $15,500.

Louisiana—State Hy. Comn., Baton Rouge, constructing embankment on 5.582 mi. Hammond-New Orleans Highway, State Project 156-B, Unit 1, St. Charles Parish, to United Dredging Co., 233 Bway., New York City, N. Y. $231,028. Noted Aug. 4.

Miss., Pascagoula—Bd. Supervs. Jackson Co., W. K. Burnham, pres., 4.5 mi. rein.-con. sea wall and roadway along beach from Bayou Chicot to mouth Pascagoula River, to Hargold Constr. Co., New Orleans, La., $294,302. Engrs. est. $600,000. Noted July 21.

Canada—Dept. Pub. Wks., Ottawa, Ont., dredging in Ellis Bay, Anticosti Island, and at St. Anne de Beaupre, both in Quebec; to Canadian Dredging Co., Midland, Ont., $515,474 and $218,420 respectively; harbor improvements at Owen Sound, to Woolwick & Brigham, 201 5th Ave. E., Owen Sound $39,948, and constructing concrete apron at Timiskaming, to Farley & Grant, Bank Natl. Bldg., Rideau St., Ottawa $54,997, both in Ontario; also breakweater extension at New Harbour, N. S., to T. P. Charleson, 179 Gilmour St., Ottawa, $27,100. Grand total $855,939.

B. C., North Vancouver—Vancouver Harbor Comrs., 525 Seymour St., Vancouver. 2,500 ft. timber bulkhead, 20,000 lin.ft. wood piling, 185 ft. timber, etc., to Giant Salvage Co. Ltd., 470 Granville St., Vancouver, $25,000.

Que., Grindstone—Dept. Pub. Wks., Ottawa, Ont., protection crib work, here, to E. Lemieax, St. Marie Beauce, $33,920.

Que., Sorel—Dept. Pub. Wks., Ottawa, Ont., deepening bed of River St. Lewis, here, to W. H. Robinson, Toronto, Ont., $33,624; and dredging main channel Lake St. Louis, here, to Les Chantiers Manseau, Sorel, $60,566.

Streets and Roads

Bids Desired

Massachusetts—Sept. 13, by Dept. Pub. Wks., Boston, bituminous macadam paving 11,256 ft. highways in Beverly, Clarksburg, and Buckland; also graveling 2,300 ft. highway in Spencer, all 18 ft. W. F. Williams, comr.

Mass., Boston—Sept. 15, by Dept. Pub. Wks., sheet asphalt or bituminous paving

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Streets and Roads (Continued)

Commonwealth Ave., North Dr. and Cottage Farm Bridge. $25,000. J. H. Sullivan, comr.

Mass., Lynn — Sept. 13, at City Hall, grading, curbing, and reconstructing, widening, etc. City Hall Sq. $25,000 or more. Address R. S. Bauer, City Hall, mayor.

Connecticut — Sept. 12, by State Hy. Commissioner, Hartford, rein.-con. paving 42,960 ft. streets in Berlin, Norwalk, Wilton, Litchfield, Hamden and Columbia; water bound macadam paving 13,043 ft. streets in Preston and Chester; bituminous macadam paving 2,374 ft. streets in Southbury; and 40 ft. span bridge in Berlin. D. H. B. Starr, Poliner Bldg., Middletown, div. Engr.; adv. E. N.-R. Sept. 8.

N. Y., New York—Sept. 15, by J. Miller, pres. Manhattan Boro, Municipal Bldg., grading, curbing and sidewalks when and where directed; grading and granite block repaving Whitehall and 14th Sts.; also grading and asphalt block paving West 158th St.

N. Y., White Plains—Sept. 10, by F. L. Merritt, clk. Bd. Supervs. Westchester Co., Court House, rein.-con. and bitulithic paving 2.94 mi. Pelham Rd., Echo Ave. and Main St., County Rd. 65. C. MacDonald, Court House, co. engr.; adv. E. N.-R. Sept. 8.

Pennsylvania—Sept. 22 and 23, by State Hy. Comn., Harrisburg, vitr. brick, or bituminous surface treated macadam paving 55 mi. 26 projects in Allegheny, Bedford, Bucks, Butler, Cambria, Chester, Delaware, Erie, Fayette, Greene, Indiana, Jefferson, Lebanon, McKean, Mifflin, Somerset, Venango, Warren, Westmoreland and York Counties; also bridge in Erie Co. J. L. Stuart, secy. state highways; adv. E. N.-R. Sept. 8.

Pa., Phila.—Sept. 15, by Dept. Pub. Wks., Bureau of Highways, grading; asphalt paving, (assessment work); asphalt repaving; redressed granite block repaving; improving country roads; and repairing bridges. G. H. Biles, dir.

Delaware—Sept. 28, State Hy. Dept. Dover, grading and concrete paving Warren School, Sandton, Contr. 94, and 2,290 cu.yd. Pleasant Valley School, Lincoln Highway, Contr. 95; also one 10 ft. span bridge, State Wharf at Little Creek, Contr. 88., etc., adv. E. N.—R. Sept. 8.

D. C., Wash. — Sept. 14, by District Comrs., District Bldg., grading approximately 45,000 cu.yd. 16th St. N. W., from Kalmia St. to District line.

Va., Richmond—Sept. 12, by R. K. Compton, dir. Pub. Wks., grading, curbing, guttering and amiesite or Kentucky rock resurfacing portion National Cemetery Rd.

W. Va., Leesburg — Sept. 15, by Bd. Supervs. Loudon Co., grading, bridging, topsoiling, etc. 4.29 mi. Road 19, Mt. Gilead, Magisterial Dist.

W. Va., Pineville—Sept. 12, at office Clerk Wyoming Co., grading, etc. 10.5 mi. Low Gap-Keystone Rd., Project 272; and 10.5 mi. Herndon-Crumpler Rd., Projects 271 and 271-B. A. B. Shannon, Pineville, co. engr.

South Carolina—Sept. 20, by State Hy. Dept., Columbia, improving roads in Orangeburg, Dorchester, Charleston, Fairfield, Florence and Williamsburg Counties. B. M. Sawyer, ch. comr.

Fla., Crescent City—Sept. 26, by Mayor and City Council, curbing, guttering and paving 3,800 sq.yd. various streets. H. S. Jaudon Eng. Co., Elberton, Ga. and Eustis, Fla., engrs.

Ala., Birmingham — Oct. 3, by City Comn., curbing, guttering, walks and 2 in. bitulithic on 6 in. concrete paving 6 blocks 32nd Ave., 40 ft., $58,500; curbing, guttering, walks and 2 in. asphalt on 5 in. concrete paving 4 blocks Ave. V, Ensley, 25 ft. $26,400, and 3 blocks Cotton Ave. and 16th Pl. S. W., 30 ft. $15,500; also grading and 6 in. concrete paving, etc. 2 blocks 27th Alley, Ensley, 12 ft. $5,125. A. J. Hawkins, city engr.

Miss., Oxford—Sept. 30, by Bd. Supervs. La Fayette Co., concrete on 5 or 7 in. concrete paving on warrenite bitulithic on 6 in. uniformed concrete or sheet asphalt with binder course surfacing 11,339 sq.yd. Federal Aid Projects 66-A and 97-A. H. C. Dietzer, Jackson, engr. Noted July 21.

Tenn., Nashville — See "Contracts Awarded."

O., Canton—Sept. 25, by Bd. Control, grading and paving approximately 1½ mi. 25th St. N.W. $204,000. Former bids rejected. W. E. Sarver, City Hall, engr. Noted Aug. 25.

O., Parma (br. Cleveland)—Sept. 13, by Village, grading, curbing and pavng, etc. Wexford and Marmore Aves., Brookview Blvd. from State Rd. to West 31st St. and Brookview Blvd. from Broadview Rd. to West 9?h, 16th, 21st, 23rd, 25th and 26th Sts. Munz Eng. Co., Natl. City Bldg., Cleveland, engr.

Michigan—Sept. 14, by R. W. Roberts, resident engr., Saginaw, concrete paving 12.379 mi. Federal Aid Road FO29-17, Contr. 1, 20 ft., Gratiot Co., for State Hy. Dept., Lansing.

Michigan—Sept. 14, by A. R. Schaefer, resident engr., Newberry, grading 1.622 mi. State T. Line MO 21-6, Contr. 1, Delta Co., for State Hy. Dept., Lansing.

Michigan—Sept. 14, by C. L. Cowgill, resident engr., Plymouth, concrete paving 9.99 mi. Federal Aid FO 50-16, Contr. 2, 20 ft. Macomb Co., for State Hy. Dept., Lansing.

Michigan — Sept. 15, by C. L. Cowgill, resident engr., Plymouth, concrete paving 4.766 mi. State Trunk Line Rd. MO 63-19, Contr. 3, 20 ft., Oakland Co., for State Hy. Dept., Lansing.

Michigan — Sept. 15, by C. H. Brown, resident engr., 14380 Wyoming Ave., Detroit, concrete paving 3.997 mi. Assessment Dist. Road 471, 20 ft., Oakland, Macomb and Wayne Counties, for State Hy. Dept., Lansing.

Michigan—Sept. 15, by H. C. Fleming, resident engr., Grand Rapids, concrete paving 5.022 mi. Federal Aid Rd. FO41-10, Contr. 3, 20 ft., Kent Co., for State Hy. Dept., Lansing.

Michigan—Sept. 15, by C. L. Cowgill, resident engr., Plymouth, concrete paving 4.766 mi. Project MO63-5, Sect. A, Contr. 2, T. L. 10-61 A, on U. S. 10, Oakland Co., for State Hy. Dept., Lansing.

Michigan—Sept. 16, by H. C. Fleming, resident engr., Grand Rapids, concrete paving 6.219 mi. Project 054-7, Contr. 1, F. A. 132-B, 20 ft., Mecosta Co., for State Hy. Dept., Lansing.

Michigan — Sept. 16, by H. C. Fleming, resident engr., Grand Rapids, concrete paving 6.219 mi. Federal Aid Road FO 54-7, Contr. 1, 20 ft., Mecosta Co., for State Hy. Dept., Lansing.

Michigan — Sept. 20, by G. D. Tramp, resident engr., Crystal Falls, bituminous macadam paving 9.694 mi. State Trunk Line Rd. 31-19, Contr. 1, and 2.523 mi. 31-18, Contr. 1, 18 ft., Houghton Co., for State Hy. Dept., Lansing.

Mich., Mt. Clemons — See "Contracts Awarded."

Mich., Wyandotte — Sept. 13, by E. C. Bryan, city clk., curbing, one course 8 in. concrete paving approximately 45,000 ft. Assessment Dists. 91, 96 and 100. $90,000. Hubbell, Hartgering & Roth, 2640 Buhl Bldg., Detroit, engrs.

Illinois—Sept. 14, by State Dept. Pub. Wks. & Buildings, Div. Highways, Springfield, concrete, vitr. brick or bituminous concrete surfacing 5.04 mi. Route 55, Sect. 551, Cook and Du Page Counties, 6.79 mi. Route 88, Sect. 102, Whiteside Co., 11.12 mi. Route 121, Sects. 141 and 142 Piatt and Moultrie Counties, 8.48 mi. Route 121, Sect. 143 Piatt, Moultrie and Douglas Counties, 4.26 mi. Route 127, Sect. 112 Clinton Co., 9.96 mi. Route 142, Sect. 104, Marion and Fayette Counties, 7.54 mi. Route 174, Sect. 105 and Route 175, Sect. 104 both Peoria Co.; grading 0.97 mi. Route 90, Sect. 107-A, Marshall Co. and 3.23 mi. Route 142, Sect. 103-A, Fayette and Clay Counties. F. T. Sheets, ch. highway engr.

Ia., Charles City—Sept. 12, by Auditor, Floyd Co., graveling 5 mi. Secondary Road Project 12. J. H. Curtis, Charles City, co. engr.

Minnesota—Sept. 20, by State Hy. Comn., St Paul, **(F.A.P. means Federal Aid Project, and S.P. State Project)**, grading 275,000 cu. yd. S.P. 1-51, F.A.P. 408, 181,000 cu. yd. S.P. 4-24, Sect. 3, F.A.P. 395, 208,000 cu. yd. S.P. 4-36, Sect. 2, F.A.P. 395, 112,600 cu.yd. S.P. 8-39, F.A.P. 302, 280,000 cu. yd. S. P. 9-21, Sect. 2, F.A.P. 399, 136,700 cu. yd. S.P. 10-54, Sect. 2, F.A.P. 382,290 cu. yd. S.P. 15-32, New Ulm-Searles Rd., 283,800 cu. yd. S.P. 28-29, F.A.P. 393, and 130,000 cu. yd. S.P. 35-24, F.A.P. 404, grading 272,000 cu. yd. S.P. 40-21, Sect. 3, F.A.P. 384; and constructing Bridges 4701 and 4702, 30 ft. long on latter road; graveling 25,100 cu. yd. S.P. 11-28, Divs. A and B, and 24,500 cu. yd. S.P. 14-24, Sects, 2, 3 and part of 4, Morton-Fairfax Rd.; also paving, etc., 171,600 sq. yd. S.P. 63-21, Divs. B and C, and 136,800 sq. yd. S.P. 63-22, Divs. E and F. State Hy. Dept., engr.

Kan., Belleville—Sept. 19, by M. L. Hill, clk. Republic Co., grading, 1 bridge, etc., on 5.536 mi. Federal Aid Project 314-B, and 1.515 mi. Kansas Project 116-A. J. O. Gunnells, Court House, engr.

Kan., Salina—Sept. 22, by Clerk Saline Co., grading and 12 bridges on 9.775 mi. Federal Aid Project 374-D, 30 ft. W. H. Cost, Court House, Salina, engr.

Neb., Hastings—Sept. 12, by City, alternate type paving 3,695 sq.yd. streets in Dist. 137; and 2,415 sq.yd. in Dist. 139. P. T. Naylor, City Hall, engr.

Okla., Oklahoma City — Sept. 13, by M. Peshek, city clk., grading curbing and 7 in. concrete paving 8,610 sq.yd. Nelson St. $27,420. B. M. Hart, City Hall, engr. Noted May 5.

Okla., Stillwater — Sept. 16, by V. A. Doty, clk. Payne Co., 7 in. concrete slab surfacing 10,560 sq.yd. Payne Co. Rd., Sect. B, Unit 2. $25,000. G. Whittenberg, Stillwater, co. engr.

Washington — Sept. 20, by State Hy. Comn., Olympia, grading and surfacing approximately 1.3 mi. State Road 5, King Co.; crushed graveling 20,500 cu.yd. Stevens Pass Highway, Chelan Co.; and constructing 120 ft. rein.-con. arch bridge over Touchet River, at Dayton, Columbia Co. S. J. Humes, state highway engr.

California—Sept. 19, by State Hy. Comn., Sacramento, bituminous macadam surfacing 4.3 mi. roadway between east boundary and Camphora, Monterey Co.; concrete surfacing, etc., 4.4 mi. roadway between Warm Springs and Milpitas, Alameda and Santa Clara Counties; also concrete paving 4.8 mi. roadway between Redlands and point ½ mi. north of Riverside Co. line, San Bernardino Co. R. M. Morton, Strub Bldg., Sacramento, engr.

Calif., Escondido — J. Speer, city clk., taking bids grading and 1½ in. asphaltic concrete paving 372,612 sq.ft. Ohio Ave., etc.

Calif., San Diego — Sept. 19, by Bd. Supervs. San Diego Co., grading and 5 in. concrete paving 68,225 sq.ft. and 6 in. concrete paving, etc. 288,089 sq.ft. 54th St. and Euclid Ave. $170,150. E. L. Freeland, engr. in charge. Noted July 14.

B. C., Vancouver—Sept. 12, by City Council, concrete or black top on concrete repaving 1.25 mi. Pender St., 41 ft. $115,319. C. Brackenridge, City Hall, engr.

Contracts Awarded

Mass., Boston — Dept. Pub. Wks., sheet asphalt paving Harold St., to M. F. Gaddis, 6 Beacon St. $30,994, and East and West Brookline Sts., to J. A. Singarella, 110 High St. $34,795; also sheet asphalt or bitulithic paving River St., to J. C. Coleman, 1620 Tremont St., Roxbury, $127,456. Grand total $195,245.

New York—A. W. Brandt, comr. Highways, Albany, **(e. e. means engineers estimate)** bituminous macadam penetration method paving 6.72 mi. Highway 8225-A, Dresden Station-Putnam Rd., Washington Co., to Xelleher Corp., Turners Falls, Mass., $179,566 e.e. $243,566; concrete paving 3.44 mi. Highway 8288, Franklin-North Franklin Rd., Delaware Co., and 4.82 mi. Repair Contr. 3184 Highway 8289, Milford-Roseboom Rd., Part 1, Highway 783 Milford Village Rd., Highway 674, Milford Center-Milford Rd., Otsego Co., to O. P. Williams, Oneonta, $175,400 and $277,000 respectively e.e. $232,404 and $386,087 respectively, 1.94 mi. Repair Contr. 1643, Highway 528, Hamburg-Springville Rd., Part 2, Erie Co., to Greenfield & Harding, Hornell, $106,030 e.e. $140,771, 6.86 mi. Highway 1770, Stamford-Summit Rd. Part 1, Highway 8290, Stamford Summit Rd. Part 2, Delaware and Schoharie Counties, to W. J. Knauer, Jamestown, $438,911 e.e. $596,813, and 1.06 mi. Highway 1786, Monroe Village, Lake and Spring Sts., Orange Co., to Westchester Constr. Co., Ft. Plain, $49,081 e.e. $59,402; 1.94 mi. Repair Contr. 3183, Highway 115, Central Valley-Turners Rd., Highway 46, Turners-Monroe Rd., Orange Co., to Hull & Hollenbeck, Central Valley, $138,178 e.e. $183,233; graveling 4.73 mi. Highway 1769, Amboy Center-Williamstown Rd., Oswego Co., to L. W. Williams, Cazenovia, $84,695 e.e. $137,336. Grand total $1,448,861. Noted Aug. 11.

N. Y., Brooklyn — J. J. Byrne, pres. Brooklyn Boro, Boro Hall, grading and granite block paving, etc. Columbia St., to Colgan Contg. Co., 26 Court St., $71,951. This corrects report in Aug. 25 issue.

N. Y., New York—J. Miller, pres. Manhattan Boro, Municipal Bldg., grading, etc., Ellwood St., to G. Kingston, $32,647. Staff St., etc., and asphalt block repaving 181st St., to M. Del Balso, 2551 Cruger Ave., $7,015 and $7,344 respectively; widening and granite block repaving Vestry St., to St. George Paving Corp., 90 West St., $73,392; granite paving, etc., East 4th St., to Casper Helbock, 633 Wales Ave., $48,165; widening and sheet asphalt paving, etc., 55th St., to W. H. Fitzgerald, 547 45th St., $29,705; sheet asphalt paving 65th St., to Cleveland Trinidad Paving Co., Flushing, $20,802, Thayer St., to Gaffney Constr. Co., Storey and Harvey Aves. $42,921, and West 211th St., to C. D. Beckwith,

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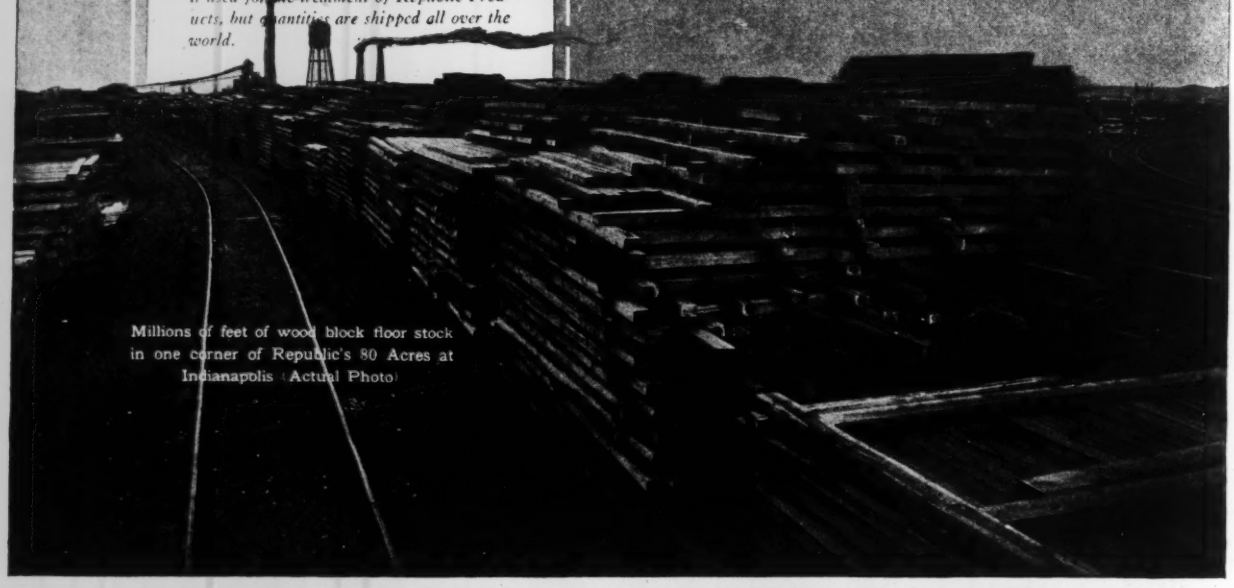

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OTHER PLANTS

ST. LOUIS PARK, MINN. SEATTLE, WASH. MOBILE, ALA. NORFOLK, VA. SALT LAKE CITY, UTAH

Streets and Roads (Continued)

Seneca Ave. and Edgewater Rd. $19,980. Grand total $281,971. Noted Aug. 18.

N. Y., St. George — J. A. Lynch, pres. Richmond Boro, Boro Hall, grading and bituminous macadam paving Mountain View Ave., to Vanbro Constr. Co., 24 Elizabeth St., West New Brighton, $12,-448; bituminous concrete repaving Tompkins Ave., to J. E. Donovan, 2205 Richmond Terrace, Port Richmond, $36,798; and grading Purcell St., to J. Johnson Sons, 455 Bway., West New Brighton, $12,367. Grand total $61,613. Noted July 28.

N. Y., St. George — J. A. Lynch, pres. Richmond Boro, Boro Hall, concrete sidewalks Morrison Ave., to D'Amico, $1,077; grading and bituminous macadam paving Courtlandt St., to Vanbro Constr. Co., 24 Elizabeth St., West New Brighton, $9,305; and Neal Doe Ave., to J. J. O'Rourke, 29 Gifford Lane, $3,681. Grand total $14,063. Noted Aug. 4.

New Jersey—State Hy. Comn., Trenton, bituminous macadam paving Route 5, Sect. 19, Dover-Denville Rd., Morris Co., to H. Y. Fimanton, Hackettstown, $92,450; and asphalt surfacing Route 17 (South) at Thoroughfare and Route 13 Sect. 5, south of Lawrenceville Gloucester and Mercer Counties, to Union Paving Co., 123 South 21st St., Phila., Pa. $18,374. Noted Aug. 11.

New Jersey—State Hy. Dept., Trenton, grading and bituminous concrete surfacing, etc., 42,810 sq.yd. Route 18, Sect. 6, Englewood Cliffs-Alpine Rd., Bergen Co., to S. J. Groves & Sons Co., 114 Marlton Pike, Camden, $378,216; and 55,623 sq.yd. Sect. 7-A, Mercerville-Hamilton Sq. Rd., Mercer Co., to F. A. Canuso, 804 South 12th St., Phila., Pa., $225,028. Noted Aug. 4.

Pa., Phila.—Dept. Pub. Wks., Bureau of Highways, to Eastern Asphalt Co., Penn Bldg., asphalt repaving Walnut St. $34,928, Wayne St. $44,880 and track area 5th St. $52,719; to Achione Contg. Co., 1607 McKean St., smooth dressed granite block repaving South Penn Sq., Broad, Filbert, Juniper and Market Sts., $186,160; to J. Salvucci, 512 North 65th St., redressed granite block repaving track area Germantown Ave. and Perkiomen Turnpike, $30,-965; to Atlantic Refining Co., 260 South Broad St., bituminous materials (block filler) $1,440; and to Vansciver Corp., Parkway at 24th St., and West Jersey Sand Supply Corp., Delaware Ave. and Marlborough St., paving gravel $2,219 each. Grand total $355,530.

N. J., Sparta—Sussex Co., grading and paving 1.5 mi. Lafayette-Sparta Rd., to Liddle & Pfeiffer, 149 New Brunswick Ave., Perth Amboy, $68,671.

Pennsylvania—State Hy. Comn., Harrisburg **(R. means Route and A. Application)**, concrete paving, etc. 15,346 sq.yd. R. 147, Chester Co., to W. Eisenberg $65,891, 5,365 sq.yd. R. 120, Westmoreland Co., to Corrado & Galliardi, Connellsville $103,399, 6,775 sq.yd. R. 110, Greene Co., to Jones Constr. Co., Beallsville $44,644, 2,356 sq.yd. R. 76, Beaver Co., to Kemena Lumber Co., Ambridge $16,240, 26,355 sq.yd. R. 131, Cester Co., to Souder Constr. Co., Woolworth Bldg., Lancaster $109,942, 2,000 sq.yd. R. 525, Cambria Co., to E. H. Brua, Hollidaysburg $6,140, 13,644 sq.yd. R. 496, Erie Co., and 18,109 sq.yd. A. 4421, Clarion Co., to J. C. Devine, Alliance, O. $61,280 and $97,018 respectively, 16,369 sq.yd. A. 4356, Lackawanna Co., and 11,247 sq.yd. R. 355, Lycoming Co., to Tyler & Cole, Meshoppen $69,975 and $95,081 respectively; concrete paving 5,388 sq.yd. and sheet asphalt paving, etc. 3,844 sq.yd. R. 55, Huntington Co., to T. J. Strickler, Huntingdon, $32,016; and sheet asphalt paving, etc. 8,133 sq.yd. R. 312, Mercer Co., to Allegheny Paving Co., Pittsburgh, $13,773. Grand total $716,399. Noted July 28.

Pa., Phila.—Dept. Pub. Wks., Bureau of Highways, to Eastern Asphalt Co., Penn Bldg., asphalt paving (assessment work) Bridge St. $3,156, Cherokee St. $5,082, Clearview St. $7,591, Ella St. $1,887, Front St. $19,185, Marsden St. $3,432, Ross St. $4,369, Valley St. $7,563, Warnock St. $2,041, Wheatsheaf St. $5,069, and 20th St. $5,776, to Union Paving Co., 123 South 21st St., Ditman St. $21,076, Lena St. $2,240, Louden, Tampa and Whitaker Sts. $20,174, Sedgwick St. $5,778, 65th St. $13,557, 65th St. $10,194, and asphalt repaving Hunting Park Ave. $51,751; also to Curtis Bros. State Rd. and Unruh St., improving N St. $813. Grand total $190,734. Noted July 14.

Pa., Phila.—Dept. Pub. Wks., Bureau of Highways, to Duffin Bros., Penn and Wamroth Sts., grading Aramingo, Ditman and Kennedy Sts. $17,543, to S. C. Ratzell, Limekiln Pike and Haines Sts., Cherokee St. $669, Gilham and Greeby Sts. $8,703, and Hasbrook St. $1,421, to T. V. Monoghan, Water and Clarkson Sts., Elsinore, I. J. Malta, Rand, Maywood and Palmetto Sts. $13,330, to M. Leewright, 424 Seville Sts., Gerhard St. $863, to McCarrick Bros., 3240 Fox St., Ryan St. $10,669; to Mack Paving & Constr. Co., Nicetown Lane and Luzerne St., asphalt paving (assessment work) Duval St., $5,228, and Horrocks St. $3,103, to Municipal Constr. Co., Inc., Washington Square Bldg., Gratz St. $2,098, Herbert and Salem Sts. $4,103, and 9th St. $5,937; to Union Paving Co., 123 South 21st St., 47th St. $5,445, asphalt repaving Jefferson St. $15,188, Tulip St. $6,929, Allegheny and Sedgley Sts. (track area) $37,309, Market St. $75,982, Spring Garden (track area) $34,898, 52nd St. (track area) $18,747, paving and repaving 9th St. $5,117, also grading and improving 57th St. $5,883; to C. G. Centrone, 522 North 65th St., redressed granite block repaving Panama St. $3,113; to Mazzola & Marano, Inc., 739 South 7th St., 31st and 32nd Sts. (track area) $15,357; to Colcos Steel & Iron Co., 1330 North 30th St., furnish and erecting smoke sheathing Bridge 233 $1,843; to Eastern Asphalt Co., Penna Bldg., asphalt paving mixtures $19,215; to Standard Scale & Supply Corp., 510 Arch St., platform scales $1,274; to J. Dyer Quarry Co., Norristown, furnishing crushed stone $15,349; to J. J. McHugh, 1617 Race St., paving and repaving certain alleys in Highway Dist. 1 $5,751, and to M. and J. B. McHugh, 892 North Markoe St., certain alleys in Highway Dist. 2 $5,731. Grand total $359,868. Noted July 28.

Maryland — State Roads Comn., Baltimore, concrete paving 0.67 mi. road from College Station to College Park, Contr. P-76, Prince George Co., to Thomas, Bennett & Hunter, Westminster, $12,075, and 6 mi. road from end Contr. AA-20 to Gibson, Contr. AA-31, Anne Arundel Co., to Christhilf & Ensey Co., 1625 Ridgely St., Baltimore, $119,000; also graveling 3.3 mi. road from St. Peters Church toward Gallant Green, Contr. Ch-45, Charles Co., to G. B. Mullin Co., 1296 Upshur St., Wash., D. C., $27,867. Grand total $158,942. Noted Aug. 11.

Maryland — State Roads Comn., Baltimore, graveling 1.45 mi. Morganza-Colton State Rd., Contr. Sm-39, St. Mary's Co., and concrete shoulders on 1.5 mi. Georgetown Rd., Contr. M-83, Montgomery Co., to Southern Maryland Constr. Co., 14 East Lexington St., Baltimore, $14,901 and $12,-402 respectively; 2.6 mi. road from Wheaton to Four Corners, Contr. M-84, Montgomery Co., to Gosnell, Long Co., Frederick, $22,345, and 1 mi. road from Plummer's Corner to Reedland, Contr. M-79, Montgomery Co., to P. E. Russell, Frederick, $7,952; concrete paving 1 mi. River Rd., Contr. M-58, Montgomery Co., to Corson & Gruman Co., 33rd and K Sts. N. W., Wash., D. C., $56,597, and 1 mi. road from Jarrettsville-Upper Crossroads, Contr. H-51, Harford Co., to Ward & O'Connell, 3114 Presbury St., Baltimore, $20,388; sheet asphalt paving 0.47 mi. Harford Rd., Contr. Bc-72, Baltimore Co., to P. Flanigan & Sons, Harford Rd. and Baltimore & Ohio R.R. tracks, Baltimore, $74,-272. Grand total $208,857. Noted Aug. 11 and 18.

Maryland — State Roads Comn., Baltimore, macadam resurfacing 1.16 mi. road from Worthington's Corner to Level, Contr. H-46, Harford Co., to E. F. Murray, 18 Allegany Ave., Towson, $18,308; sheet asphalt paving 0.53 mi. Harford Rd., Contr. Bc-71, Baltimore Co., to Baltimore Asphalt Block & Tile Co., 1320 North Monroe St., Baltimore, $78,155; concrete paving 1 mi. road between Westover and Fairmount, Contr. S-24, Somerset Co., to Hannemann-Burroughs Co., Salisbury, $22,696, and 0.08 mi. Rigg Sect. Baker and Wales Sts., Brentwood, Contr. P-51, Prince George's Co., to E. R. P. Smith, Hyattsville, $3,073; concrete shoulders on 1.2 mi. Riggs Rd., Contr. 208-A, Prince George's Co., to J. P. Maher, 4324 15th St., Wash., D. C., $9,086; bridge on Ager Rd., Hyattsville, Contr. P-75, Prince George's Co., to Potomac Bridge Constr. Co., 229 9th St. N. E., Wash., D. C., $9,828. Grand total $141,146.

Maryland—State Hy. Comn., Baltimore, concrete surfacing 1 mi. Contr. F-100, Frederick Co., and 2 mi. Cont. M-81, Montgomery Co., to E. C. Valentine, Frederick, $20,282 and $41,042 respectively; also 2.44 mi. Cont.-K 31, Kent Co., to Old Line Contr. Co., Chestertown, $41,796. Grand total $103,120.

Md., Baltimore — Bd. Awards, concrete paving 4,300 sq.yd. streets listed in Contr. 425, to Mahoney Bros., 1111 Rutland Ave., $6,965; and 25,500 sq.yd. Contr. 424, to P. Reddington & Son, 2 East Lexington St., $58,852. Noted Aug. 25.

West Virginia—State Hy. Comn., Charleston, to Wiley & Waugh, Logan, grading, etc. 3.56 mi. Project 75, Calhoun Co. $64,-456, and to F. H. Herring Constr. Co., Valley Fort, 3 mi. Project 3345 Mingo Co. $27,295; to J. J. Battershill & Son, Huttonsville, stone base surfacing 10 mi. Project 3111-A, Sects. 1 and 2, Gilmer & Co. $152,290, to McArthur & Hood, Huntington, gravel surfacing 4.6 mi. Project 159-D, Nicholas Co. $22,420, to Keeley Constr. Co., Clarksburg, 4.8 mi. Project 159-C, Nicholas Co. $27,623, to G. N. and O. J. Yoho, Cameron, 5.4 mi. Project 159-A, Nicholas Co. $42,930, to Huntington Gravel & Supply Co., Huntington, furnishing gravel and gravel surfacing 3.56 mi. Project 3189, $27,370 7.4 mi. Project 3190, $35,645, and 8.9 mi. Project 3302-A and B $42,263, all Wayne Co., to Hatfield Constr. Co. Huntington, 8.9 mi. Project 3202, Wayne Co. $39,508, and to Pinnell & Meredith, Cottageville, 7.4 mi. Project 3190, Wayne Co. $36,592; to W. H. Armstrong & Co., Fairmont, concrete surfacing 1.5 mi. Project 3396, Wetzel Co. $74,415, to Allied Products Co., Cleveland, O., surface treating 2.25 mi. Project 2202, Logan Co. $2,929, to Southern Oil & Tar Co., Clan and Fulton Sts., Louisville, Ky., 7 mi. Projects 87, 2037 and 3298, Mingo Co. $7,376; to C. G. Fuller & Co., Charleston, asphalt surfacing 5 mi. Project 3248-A, Wyoming Co. $5,075, to F. C. Simmons Co., Huntington, 5.56 mi. Project 3189, Wayne Co. $36,011; to Shaid Constr. Co., Elkins, concrete circular arch culvert on Project 2058 Brooke Co., $18,278. Grand total $680,084. Noted Aug. 11.

W. Va., Grantsville—Calhoun Co., grading Route 35, to Plane Constr. Co., Keyser, $98,000.

Alabama—State Hy. Comn., Montgomery **(e.e. means engrs. est.)**, graveling 14.06 mi. roadway between Seale and Girard, Russell Co., to Newell Constr. Co., Martin Bldg., Birmingham $65,174 e.e. $66,000, and 18.81 mi. roadway between Union Springs and Barbour Co. line, Bullock Co., to C. G. Kershaw, Woodward Bldg., Birmingham $191,062 e.e. $152,500; graveling and sand clay paving 22.4 roadway between Greenville and Luverne, Butler and Crenshaw Counties, to Moore & Law, Tampa, Fla., $99,940 e.e. $100,200; sand clay paving 12.14 mi. roadway between Geneva and Samson, Geneva Co., to H. Foster, Luverne, Ala., $51,456 e.e. $52,100, 9.72 mi. roadway between Ozark and Enterprise, Dale Co., to N. Giddens, Troy, $18,407 e.e. $19,-100, 6.77 mi. roadway between Andalusia and Opp, Covington Co., and 18.45 mi. roadway between Samson and Opp, Geneva and Covington Counties, to Gillis Constr. Co., Brewton, $25,717 and $82,474 respectively e.e. $26,300 and $83,000 respectively; grading, etc. 6.57 mi. roadway between Mobile Co. line and Fruitdale, Washington Co., to Z. D. Fountain, Hattiesburg, Miss., $39,696 e.e. $40,200, 13.24 mi. roadway between Demopolis and Moscow, Marengo Co., to B. C. George & Co., Starkville, Miss., $106,-286 e.e. $107,000, 16.02 mi. roadway between Foley and Loxley, Baldwin Co., to Simms, Skelley & Chapman, Orlando, Fla., $52,905 e.e. $53,100, 18.5 mi. roadway between Uniontown and Demopolis, Perry, Marengo and Hale Counties, to W. J. Bryson, Montgomery $121,196 e.e. $122,500, 11 mi. roadway between Waverly and Camp Hill, Tallapoosa Co., to J. W. Gwin, Hamilton Station, Birmingham, $76,648 e.e. $77,-100, all foregoing 18 ft. wide; also constructing 250 ft. overead concrete crossing, 20 ft. over Atlantic Coast Line R.R. tracks near Snowdoun, Montgomery Co., to Champanois & Blanks, Meridian, Miss., $17,937 e.e. $18,000. Grand total $948,898. Noted Aug. 4.

Alabama—State Hy. Comn., Montgomery **(e.e. means engrs. est.)**, graveling and top soiling 23.34 mi. roadway in Cleburne Co., and chert surfacing 5.33 mi. roadway De Kalb Co., to Newell Contg. Co., 3828 Ave. A, Birmingham, $67,725 and $65,750 respectively e.e. $70,000 and $67,000 respectively; grading, etc. 8 mi. roadway between Pell City and Cook Springs, Bankhead Highway, St. Clair Co., and graveling 5.75 mi. roadway, Lamar Co., to H. N. Donohoo, 510 North 21st St., Birmingham, $84,057 and $57,952 respectively e.e. $85,000 and $60,000 respectively, 11.15 mi. roadway towards Athens, Madison Co., and graveling and chert surfacing, 11.15 mi. Huntsville-Athens Highway, Limestone and Madison Counties, to R. M. Smith Co., Amer. Trust Bldg., Birmingham $103,380 each e.e. $105,200 and $105,000 respectively; graveling 11.44 mi. roadway from Athens to Huntsville, Limestone Co., J. W. Gwin, Hamilton Sta., Birmingham, $101,196 e.e. $102,100, 3.43 mi. roadway through Marion Co., Marion Co., to Nixon & Phillips, Amer. Trust Bldg., $34,418 e.e. $35,500; grading 16.22 mi. roadway, Cherokee Co., to W. C. McCoy, Lincoln Life Bldg., Birmingham, $90,453 e.e. $95,000, and 8.46 mi. Moulton-Decatur Highway, Morgan and Lawrence Counties, to J. B. Turner, Amer. Trust Bldg., Birmingham, $71,211 e.e. $73,-500, all foregoing 18 ft. wide. Grand total $779,522. Noted Aug. 4.

Constr. News page 121

LET'S LOOK INTO HANDLING COSTS!

HERE are some material handling costs based on a time study of Industrial Machines operating eight hours a day, with one operator working eight hours a day, at 80c. per hour. The operating cost includes depreciation over a period of ten years, interest on the investment, fuel, labor, oil, grease and maintenance.

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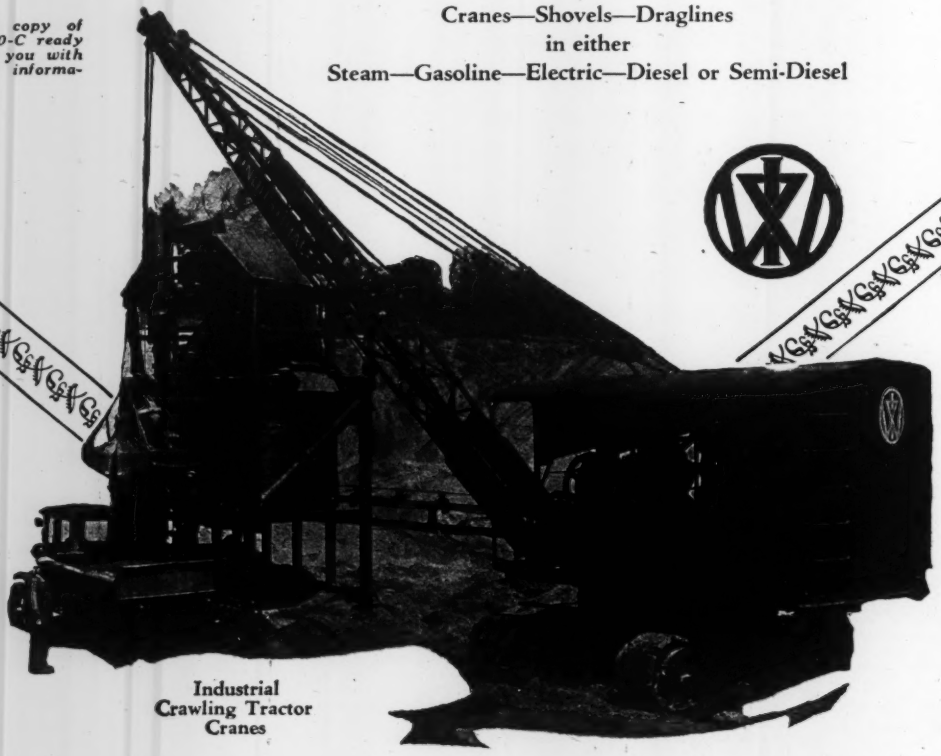

Industrial Crawling Tractor Cranes

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